Monsanto

File Seattle Water

FROM (NAME—LOCATION—PHONE) J. R. Condray - General Offices - B3NJ (4-5254)

DATE : January 8, 1979

cc: M. N. Miller
R. S. Nelson

SUBJECT :

REFERENCE :

TO : MIC Environmental Contacts:

Delaware River	-	E. S. Jamro
Everett	-	I. A. Newcomer
Nitro	-	H. M. Galloway/J. P. Hyland
Akron-Montrose	-	C. P. Rader
Akron-Wingate	-	O. D. Casdorph

Good example of how to handle an emergency spill situation.

J. R. Condray

JRC:csv
Attachment

IN - 10 (REV. 6/77)

860296

From the de'k of
J. R. CONDRAY

~~① R S H~~ ① √ RC
OK

② RLC
③ cam - send with cover memo
④ ~~③~~ File Seattle Water

Good writeup except
for the sales pitch
at the end.

This might serve as a good
reminder, if sent to our
other plants. Reminds people what
to do in case of emergency. [illegible]

From the desk of
M. N. MILLER

12/27/78

J. R. CONDRAY

JAN 2 1979

ENCLOSED IS A COPY OF
REAT'S REPORT OF OUR
NOV 1 SPILL. IT COVERS OUR
REQUESTS AS WELL AS IT COULD
BE DONE.

RYCKMAN'S EMERGENCY ACTION & CONSULTING TEAM

REACT CERTIFIED PROJECT SUMMARY FOR

MONSANTO MINERAL OIL SPILL

Prepared For

Mr. Melvin N. Miller
Technical Services Superintendent
Monsanto Company
P. O. Box 80963
Seattle, WA 98108

By

Ryckman's Emergency Action & Consulting Team
2208 Welsch Industrial Court
P. O. Box 27310
St. Louis, MO 63141

December 7, 1978
Project No. 279

REACT CERTIFIED PROJECT SUMMARY FOR MONSANTO MINERAL OIL SPILL

1. Location, Date and Time of Spill

On the morning of November 1, 1978, 7:00 a.m. PST, food-grade mineral oil was released from a concrete holding tank on the property of the Monsanto Industrial Chemical Company, Seattle, Washington. The spill site was located at 47°31'10" latitude North and 122°18'15" longitude West, as shown in Figure 1.

2. Description and Quantity of Spill

The spill consisted of food-grade mineral oil, which escaped from a concrete holding tank that had been over-filled. The mineral oil flowed over the top of the tank and over the ground surface for a distance of about 30 feet, before flowing into a slip leading into the Duwamish Waterway. Since a portion of the spilled oil was absorbed into the ground as it flowed toward the watercourse, it is estimated that less than 50 gallons entered the slip. A rough sketch depicting the spill area and containment procedures is shown in Figure 2. Figure 3 shows the relative positions of the concrete holding tank, the embankment, and the slip into which

2. Description and Quantity of Spill, Continued

the oil flowed. Figure 3 also shows the boom structure used to contain the spilled oil.

3. Water Course Affected

The slip where the spill occurred is located about three miles up the Duwamish Waterway from the point of discharge into Elliott Bay (Puget Sound). Flow into the Duwamish Waterway is influenced by tidal changes. The slip where the spill occurred is approximately 700 feet long and 250 feet wide, and the oil entered the slip at its upper end.

4. Description and Cost of Damage

Because of the quick and decisive action on the part of Monsanto personnel, the fast response of REACT, and a combination of environmental factors, the spilled mineral oil was effectively contained in the slip. Consequently, no significant environmental damage to the Duwamish Waterway or Elliott Bay could be attributed to the spill.

5. Cleanup Procedures

At 10:50 a.m. CST on November 1, 1978, Mr. Mel Miller, Technical Services Superintendent, called REACT's corporate response center in St. Louis to request assistance on the cleanup of the mineral oil spill.

5. Cleanup Procedures, Continued

Mark D. Ryckman, Vice President of Operations, advised that we could assist, but recommended that Monsanto utilize their available manpower and equipment, and REACT would supply any additional manpower, equipment, or technical supervision needed to complete the cleanup. REACT was then authorized to dispatch an on-scene coordinator to the spill site. Within the hour, Rolf T. Skrinde, Ph.D., P.E., REACT's on-scene coordinator, and his assistant, W. Eugene Sinner, arrived on the scene to assess the spill situation.

REACT personnel met with Mel Miller, Technical Services Superintendent, and Howard Hand, Director of Maintenance Personnel, and inspected the oil spill. Monsanto maintenance personnel had deployed 60 feet of Sorb-Oil boom and had ordered an additional 400 feet to complete the sealing-off of the slip. An additional four bales of 3M Type 126 sweeps and two rolls of 3M Type 100 sorbent materials were purchased for deployment by the cleanup crew. This procedure completed an oil-tight barrier to contain the oil, which was than pulled in by boat to trap the oil spill in a narrow band along the North side of the slip.

Oil in the contained area was removed with pieces of Type 100 sorbents, and oil-soaked materials were removed and deposited in disposal drums.

5. Cleanup Procedures, Continued

A site visit on the following day, November 2, by REACT personnel, assured that containment was still firmly in place and the oil removal process was proceeding on schedule.

A meeting among REACT personnel, Monsanto personnel, and Washington State Dept. of Ecology personnel, assured that the cleanup was proceeding to their satisfaction.

6. Cost of Cleanup

The cost of REACT's services and expenses was $2,401.72.

7. Cause of Spill

A small portion of food-grade mineral oil escaped from a concrete holding tank, which was apparently overfilled. The material flowed over the top of the tank onto the ground, and into a slip leading into the Duwamish Waterway. Tide and wind conditions assisted in containing the spill within the slip area.

8. Action Taken to Prevent Reoccurrence

Monsanto personnel are to be commended for their fast action in responding to this spill. Monsanto personnel should be trained in handling a variety of possible environmental crises that might occur at this plant.

A Spill Prevention and Countermeasures Plan should be on file, periodically updated, and approved by a

plan has one. we should put in the Assessment Report so it is easily located

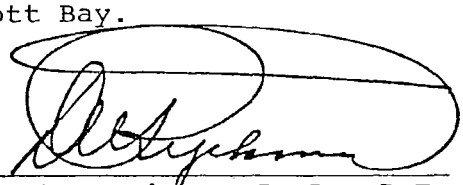
8. Action Taken to Prevent Reoccurrence, Continued

certified professional engineer. The professional environmental crisis engineering services of REACT are available to assist Monsanto in reviewing this SPCC Plan and to assist with any future environmental crises. It is also recommended that an open purchase order with REACT, or a similar firm, be kept on file in order to obtain emergency services in a fast and efficient manner, when necessary.

9. Cleanup Certification

I hereby attest to the fact that this cleanup effort was conducted in accordance with the best available engineering practices and that, as a registered engineer, the spilled mineral oil, as discussed in this report, was effectively contained and kept from entering the Duwamish Waterway.

It is my further professional opinion that this spill posed no significant environmental effect on the Duwamish Waterway or Elliott Bay.

Name: 

D. W. Ryckman, Sc.D., P.E.
Registration No. E-11430

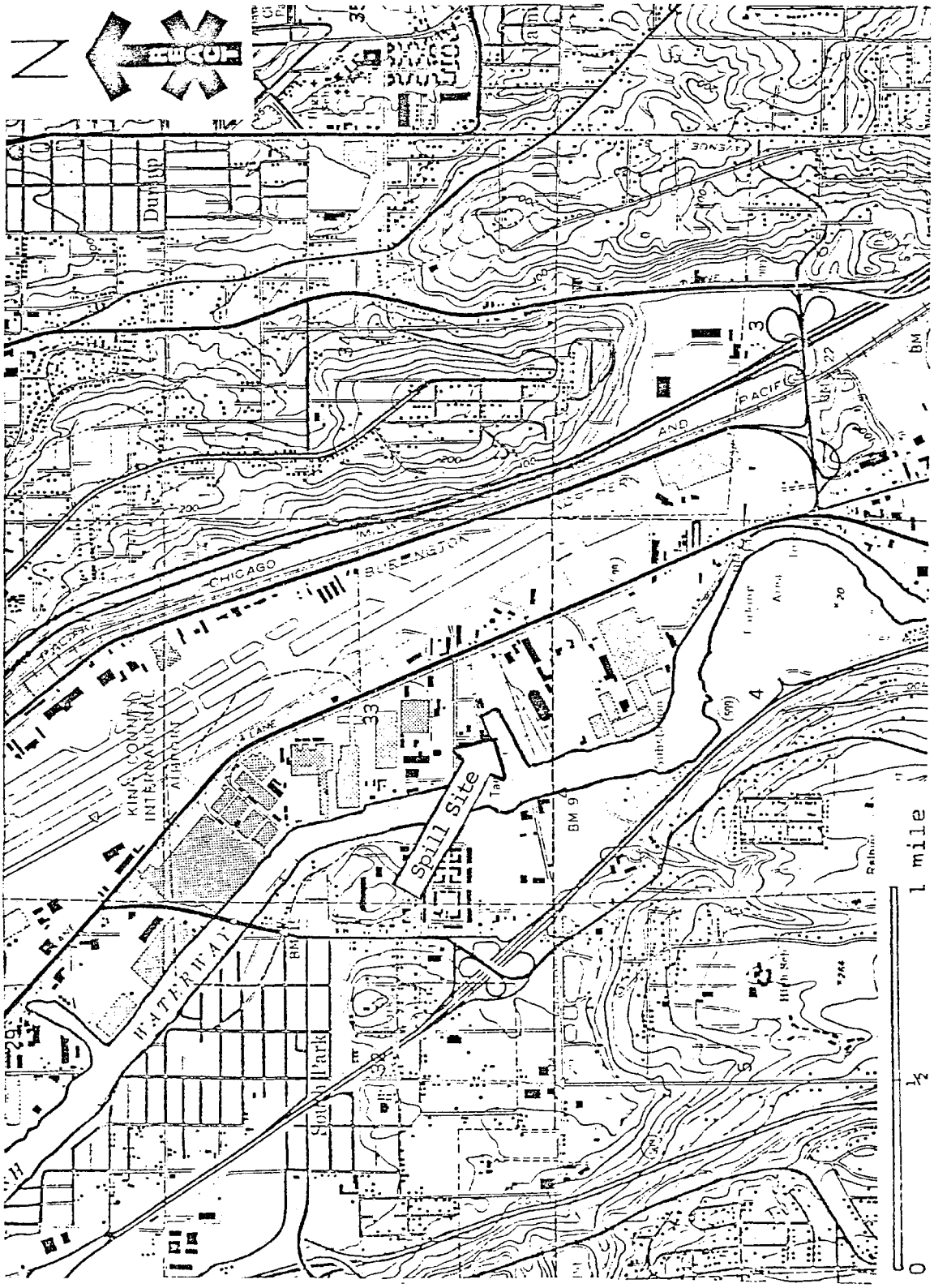


Figure 1: Site Location Map of Monsanto Mineral Oil Spill

Scale 1:24,000

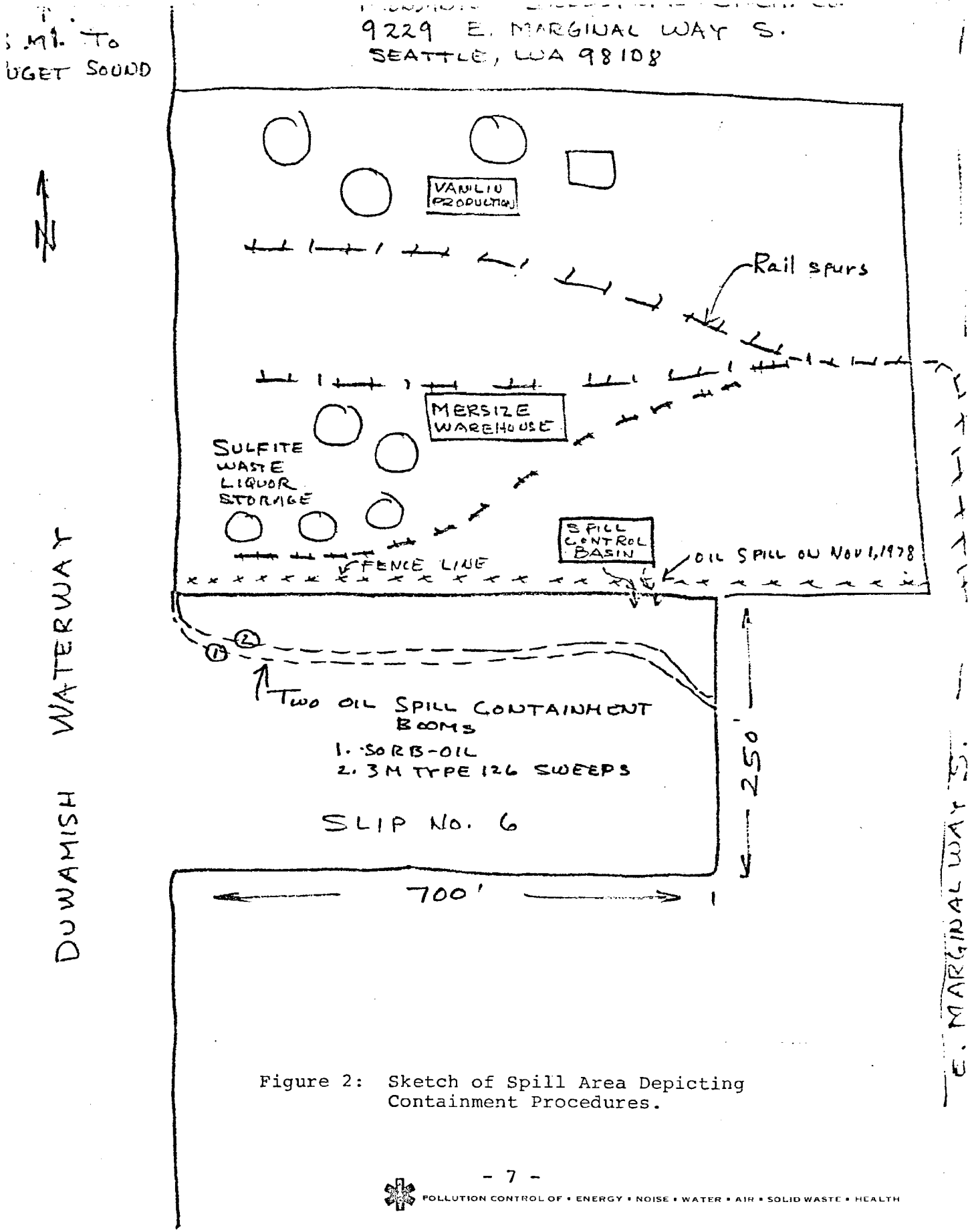


Figure 2: Sketch of Spill Area Depicting Containment Procedures.

Figure 3: Spill area showing relative positions of the concrete holding tank, the embankment, and the boom structure used for containment.